Report Highlights

- Campus-Wide IT
- Academic & Research Computing
- Academic Personnel
- Instructional Computing
- Administrative Computing

Campus-Wide IT

1. Information Technology Board
2. Information Technology Planning Group
3. Office of Information Technology
   A. Campus Network Wiring Projects - Phase I
      Zeina Ellis, OIT

Eighteen projects were submitted and the six highest projects were considered funded. As these projects developed we determined that we had enough funds to include the next highest prioritized project that also had a deadline of this summer. Here is the status of those seven projects to date:

1. Biology II

   This project involves rewiring the whole building using the new conduit and cable trays installed as part of the electrical renovation of the building. Contractor work began on April 9th. Once completed, Bio II will have 91 miles of workstation cabling. The major contractor work should be completed by the end of July 2001.

2. Biology III

   This project involves rewiring the whole building. Our Minor Capital Improvement Program request for a complete cable tray system has now been approved, and we are waiting to proceed on the work. Conduit work will proceed soon after the cable tray system is placed. Work is in process to update the job specification document and riser drawings. We estimate that the remaining work
will go out to bid by July 31, 2001. This project has a deadline of September 20, 2001.

3. **Engineering II**

The original request for this building was to rewire the entire building, but due to its size, the project was split into two separate projects. The priority 1 project only involves the replacement of existing thicknet wiring with fiber for riser and lateral distribution between communication closets. Preparation of the communication closets has been completed including clearing backboard space, coring, conduit installation, and power work. One fiber run has been placed, terminated and tested. We have received an estimate for fiber and innerduct placement and will be requesting an estimate for fiber termination and testing in the very near future. We estimate that this project will be completed by the end of September 2001.

4. **Davidson Library – Communication Closet Remediation**

This project involves protecting the network equipment and wiring in five existing communication closets that are currently shared with custodial equipment. This work is currently out for estimate with Communications Services. We estimate that this work will begin by October 2001.

5. **Davidson Library – Workstation Wiring for 51 Drops**

This project involves the installation of 51 Infostation drops throughout the building. Currently, the 1st floor drops are being placed by Communications Services. We estimate that this project will be completed by January 2002.

6. **Noble Hall**

This project involves rewiring the whole building. One communication closet has been upgraded and a new communication closet was created in the space used by empty lockers. Conduit was run from the two existing communication closets to the new communication closet. Riser diagrams and floorplans have been completed. Work is progressing on a wiring specifications document, a cable tray system design and a communication closet design. We estimate that the cable tray work will go out to bid by August 31, 2001. The workstation wiring bid will follow, hopefully by September 30, 2001.
7. **Psychology**

This project involves rewiring the whole building. Conduit was placed between two wings during some other renovation work. We have gone out to bid for riser conduit to connect the communications closets. We are close to going out to bid for a complete cable tray system. Riser diagrams and floorplans have been completed. Work is progressing on conduit work and communication closet design and layout. We estimate that the workstation wiring work will go out to bid by August 31, 2001.

B. **Campus Network Wiring Projects – Phase II**
Elise Meyer, OIT

There are forty-one projects under consideration for Phase II. A draft prioritization of the projects has been submitted to the ITPG for review and comment. Our plan is to finalize the prioritized list by July 31, 2001 and start incorporating the projects into our workflow.

C. **Next Generation Backbone – Phase I**
Kevin Schmidt, OIT

Phase I of the Next Generation Backbone (NGB) consists of a core of seven switches interconnected by redundant gigabit ethernet links and extending fast ethernet and installing switches in 35 campus buildings. We are close to setting a date for when this phase will go into production.

D. **Communications Services Projects**
Vince Sefcik, Communications Services

A. We're coordinating some of the campus wireless data networking projects. Services that will be provided include development and publishing of wireless implementation guidelines and security guidelines, spectrum management, coordination of RF surveys, and assistance in the arbitrating spectrum disputes.

B. We'll be introducing Ernestine, a voice recognition directory information service, this summer. The service will provide campus telephone numbers in response to a caller speaking a person's or department's name.

C. We plan to release a Request For Proposal to replace our current Centrex telephone system. The RFP will be released this summer and the replacement system will be installed next summer.

D. We're going to merge our Campus Directory database (the database of campus names, telephone numbers, departments and e-mail addresses) with IS&C's LDAP database to form a single UCSB Directory.
Academic and Research Computing

1. **Departmental Shadow Accounting System (GUS)**
   Shanna Bowers, Marine Science Institute; Joy Williams, Department of Chemistry

   The Marine Science Institute and Department of Chemistry and Biochemistry are jointly developing GUS, a departmental shadow accounting system. It is intended to both substantially ease departmental accounting workloads and to increase the quality of service we provide to our Chairpersons, Directors, MSOs, and Principal Investigators.

   The Budget Management component has now been in use for more than two years. The Purchasing component was released in January. The Personnel component is currently under limited release for beta testing. Departmental Recharge functions are currently under development.

   Anticipated future components include web access by Principal Investigators for current budget information and order placement/tracking, a direct connection with the UCSB campus Data Warehouse and a proposal/award management module.

   GUS runs on Macintosh and Windows platforms in both stand-alone and client-server configurations.

   GUS is currently in use at 15 UCSB departments and ORUs.

Academic Personnel

1. **The Office of Academic Personnel**
   Jan Smith, Academic Personnel

   The Office of Academic Personnel is in the process of converting hardcopy faculty records into an electronic archive and automating appointment, merit and promotion case processes using the VisiFlow document management system. Documents have been scanned and are being indexed, based on access rights, to build the archive from existing files.

   Once the workflow implementation is completed, department analysts will transfer new case documents directly from their desktops or department servers to the Academic Personnel server. This file transfer process uses SSL 128-bit encryption. The Visiflow import server is configured to convert the files to document images, apply the indexes, and import the documents into the workflow system, eliminating the need to create, distribute and scan paper. Digital signatures will be used for approvals. The system provides the ability to attach text, posted notes, redaction, highlighting, voice, tasks, graphics, and other forms of electronic annotations to the case documents, helpful in communicating within
or between reviewing agencies. Completed cases will be merged with the archive. The automated workflow is designed to speed up the case review process and facilitate access to case documents for the associate vice chancellors, deans, department chairs, CAP, CEPAP, ad hoc committees, and academic personnel analysts. Faculty members will be able to view their case in progress and check the status.

A related project under development is the provision of web-based standard reporting, ad hoc query and export functions from the Academic Personnel database for the colleges, departments, and the academic senate.

Both projects will be integrated into an Academic Administration portal where users, with a single logon authenticated with VeriSign's PKI digital certificates and LDAP, are presented services and data based on their user role.

**Instructional Computing**

1. **UCSB Extended Learning Services**  
   Howard Adamson, Off-Campus Studies

   The Off Campus Studies, the degree program division of Extended Learning Services, began using H.323 compliant IP videoconferencing to deliver its televised distance-learning program in the fall quarter of 2000. For the first time since the program's inception in 1973 two-way video and audio was available for most classes at the UCSB Ventura Center, a satellite campus located 45 miles south of the main UCSB campus. The courses originate in classrooms on the main campus that are equipped for Internet access and are delivered to one of five Internet ready rooms at the Center. A specially constructed roll about unit was used on the main campus to reach the rooms distributed across the campus. Approximately 30 degree credit bearing classes in Computer Science, Electrical and Computer Engineering and a variety of humanities and social science disciplines were delivered in the program.

   UCSB Extension, the continuing education program of Extended Learning Services, also employed the equipment to originate classes both on campus and at the UCSB Ventura Center with complimentary receive location. This joined both major operating bases of Extension to offer simultaneous openings with lower than normal minimums at the location where the instructor was present electronically. In addition, Extension began offering its first asynchronous distance-learning class, Introduction to Data Communications employing both text-based and streaming media instruction. Enrollments have been strong, and student performance, judged by timed on-line examinations is generally superior to performance in a companion live class.

2. **Instructional Computing**  
   Bill Koseluk, Instructional Computing
**Instructional Computing** continues to serve as the primary site for undergraduate computer access on the Santa Barbara campus, with 10 computer laboratories and open access facilities, with various management associations with other campus entities, specifically the Life Sciences area. The department also provides assistance with the maintenance of the campus public access Netstations.

This year Instructional Computing (IC) opened three new facilities, a large Macintosh G4 lab, a video/media lab, and a large Pentium facility to serve instructional needs across the university.

IC also provides training programs on various I.T. applications. A full suite of courses on various tracks is offered to campus staff and faculty at a nominal charge. Student employees are now MOUS (Microsoft Office User Specialist) certified as part of their employment and training.

IC continues to operate the campus uMail system electronic mail for all students. Staff in this group is also working with other campus personnel to establish a campus portal and a single sign-on to campus systems.

IC also houses the Software Depot, the centralized campus resource for bulk software purchase agreements and coordination. This operation has grown substantially in the past year.

IC is now embarking on a project to address the digital divide. With the target audience being students from economically disadvantaged backgrounds, this multi-stage initiative will involve the teaching of a new for-credit course on basic I.T. skills, the provision of training for various certifications, student employment and other mentoring activities.

**Administrative Computing**

1. **Information Systems & Computing**  
   Glenn Davis, Information Systems & Computing

   IS&C has put an LDAP-based UCSB Directory into production and populated it with faculty, student and staff data. The UCSB Directory is available for searching from browsers and it provides an API for "basic eligibility" authentication from other servers.

   IS&C is now implementing a prototype role-based authorization system based on the DirectorySmart product from OpenNetwork Technologies. DirectorySmart supports distributed, fine-grain, role management. That is, using a web interface, staff will be able to assign and modify roles for each individual within their authorized domain in the organizational hierarchy. Role values are stored in a multi-valued field within each person's LDAP entry and are checked automatically when controlled urls are accessed by that person's browser.Urls are
controlled via a standard NSAPI or ISAPI installed in participating web servers. Thus, by using the plug-in API to access role data stored in LDAP, web screen builders can present personalized information to anyone who logs on to their server. DirectorySmart also supports Single-Sign-On, so once authenticated, users can switch among all participating web servers and view personalized data on each one without logging on again. DirectorySmart, in combination with a content management system and, perhaps, a template manager would provide the infrastructure to support most portal functions we envision.

Accounting and IS&C rolled out a web-based travel voucher reporting and direct deposit system.

All employee identification numbers were recently changed from values resembling social security numbers to less private values which are assigned randomly.

A Brio Insight server supporting standard web-based reporting from the Data Warehouse has been implemented.

2. **UNIX & Office Systems**
   Jamie Sonsini, Information Systems & Computing
   
   A. Thin Client Service: We have over 50 customers in 6 departments. It is working well. We are experimenting with using thin client services to provide a "desktop" via a Web browser to those working at home or traveling.
   
   B. Proxy Server for the Library: The Proxy Server has been in production since last winter. (422 users in May).
   
   C. Mobile Access to IS&C Services:
      - Introduced WAP access to CorporateTime in February
      - Introduced WAP access to our UCSB Directory (LDAP)
      - Experimenting with WAP access to Email this summer
      - Providing and supporting Email clients for PDA's.
   
   D. CorporateTime: Now have over 2,200 users on campus.

3. **Housing & Residential Services**
   George Gregg, Housing & Residential Services

   The Housing & Residential Services department has completely replaced paper applications for housing with Web applications for all students except those applying for our Family Student Housing. The latter Web application is under development.

   The Conference Services department has implemented the Conference Programmer management system purchased from the Seattle Technology Group.
The Community Housing Office has implemented a Web-based community rentals information system purchased from the Irvine-based vendor Logic Domain.

The Housing & Residential Services Information Systems unit has implemented the Microsoft Outlook email, calendaring, and task management system on an Exchange 2000 server and converted all users to the new system.

The Trend antivirus solution was implemented to protect the Housing & Residential Services administrative servers and workstations.

The ResNet infrastructure has been upgraded from 3Com hubs to Cisco switches in all residence halls. The speed of the ResNet connection to the Internet has been doubled to 20 mbps, and a Packeteer packet shaping device has been installed to prioritize ResNet traffic.

The Housing & Residential Services Operations unit implemented a Web interface that is used by residential students to enter requests for maintenance services and to follow up status.